

SEQUENCE LISTING

<110> CJ Corporation

<120> An alkaline lipase from *Vibrio metschnikovii* RH530 and a nucleotide sequence encoding the same

<160> 5

<170> KopatentIn 1.71

<210> 1

<211> 2578

<212> DNA

<213> *Vibrio metschnikovii* RH530

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tcgccacgta ccttgaatgg cgatacgtag ctggcggttg ccttcttgct tgaggatccc      180
gatttcaatt tgccgatcgg gttgaaaatg gaaatagcgt aatgactgta aaaaagtacg      240
attcaaataa ggtgcatgct gctctaaata aacaatgtcg gcatccgaaa agcgcaatga      300
agccaactga ttgatttctt ggcgtacttc ctctaataaa tcgctaattg cttcatcact      360
gcgcacaatc aattcatagc gcacctcaac atccggatac aacgaatgaa cggcctgcat      420
catattgatt ttataggcat caagatccaa taaactgcgg ataaaaagag gagaaaatag      480
gcgatcgctc atgatgatgc catccttttcg ttcgggtttca ttcagtcatt acgttagtaa      540
caacgtgttg ctaacttttg gcgaacaata aagtaccctt gtaagtttgt caacttttgt      600
gacaaacctt gtcagtcggt atttggcctt attataatta tggatattga ggggtaagga      660
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tttgatgcag cgagacgacg tatttgctcg caaaaagtcc atacttatcc taattttatc     1020
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tcccattacg ctttattaaa cccgtggaat gtcaaacaaa tagaagattt tggatcgcac     1140
cccgagcgcg ctaattgggt tgatcttcat actttactca aagaagaaat gccgctggct     1200
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acatccgtgg tactattttc attagaaaaa gagtttttag tggcgatat tattgatgcc     1320
tacgccaaat ttggcgctga agttaatcgc atgaccatta aacgccgctt gatcaatacc     1380
ggggtgatcg tcagtaccaa taaaatggcc gcatcttgta aaggcaaagg agccaaacca     1440

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ctg gtg aaa cgc tct aat cca aat cgg cca gat tgt ggt aaa tgg gca Leu Val Lys Arg Ser Asn Pro Asn Arg Pro Asp Cys Gly Lys Trp Ala 50 55 60	192
ttg cct ggc ggg ata gtg tat gac gaa gat atg acc gct cat ggt gga Leu Pro Gly Gly Ile Val Tyr Asp Glu Asp Met Thr Ala His Gly Gly 65 70 75 80	240
gaa cct gtc gat gag gat ttt gat gca gcg aga cga cgt att tgt cgg Glu Pro Val Asp Glu Asp Phe Asp Ala Ala Arg Arg Arg Ile Cys Arg 85 90 95	288
caa aaa gtc cat act tat cct aat ttt atc agc gat ccg ctg gtt gat Gln Lys Val His Thr Tyr Pro Asn Phe Ile Ser Asp Pro Leu Val Asp 100 105 110	336
ggc aac ccc aaa cgc gat ccg aat ggt tgg agt gtc agt att tcc cat Gly Asn Pro Lys Arg Asp Pro Asn Gly Trp Ser Val Ser Ile Ser His 115 120 125	384
tac gct tta tta aac ccg tgg aat gtc aaa caa ata gaa gat ttt ggt Tyr Ala Leu Leu Asn Pro Trp Asn Val Lys Gln Ile Glu Asp Phe Gly 130 135 140	432
atc gac ccc gag cgc gct aat tgg ttt gat ctt cat act tta ctc aaa Ile Asp Pro Glu Arg Ala Asn Trp Phe Asp Leu His Thr Leu Leu Lys 145 150 155 160	480
gaa gaa atg ccg ctg gct ttt gat cat gtc gcg caa att cag cat gcg Glu Glu Met Pro Leu Ala Phe Asp His Val Ala Gln Ile Gln His Ala 165 170 175	528
tgg caa aaa tta cgc gct gcg gtt gaa tac aca tcc gtg gta cta ttt Trp Gln Lys Leu Arg Ala Ala Val Glu Tyr Thr Ser Val Val Leu Phe 180 185 190	576
tca tta gaa aaa gag ttt tta gtg gcg gat att att gat gcc tac gcc Ser Leu Glu Lys Glu Phe Leu Val Ala Asp Ile Ile Asp Ala Tyr Ala 195 200 205	624
aaa ttt ggc gtc gaa gtt aat cgc atg acc att aaa cgc cgc ttg atc Lys Phe Gly Val Glu Val Asn Arg Met Thr Ile Lys Arg Arg Leu Ile 210 215 220	672
aat acc ggg gtg atc gtc agt acc aat aaa atg gcc gca tct tgt aaa Asn Thr Gly Val Ile Val Ser Thr Asn Lys Met Ala Ala Ser Cys Lys 225 230 235 240	720
ggc aaa gga gcc aaa cca gcc acc gtt tat cgt ctt gcc agt cat gaa Gly Lys Gly Ala Lys Pro Ala Thr Val Tyr Arg Leu Ala Ser His Glu 245 250 255	768
gtc acc tat ttt caa acc tgt tta cga ggt Val Thr Tyr Phe Gln Thr Cys Leu Arg Gly 260 265	798

<210> 3
 <211> 266
 <212> PRT
 <213> *Vibrio metschnikovii* RH530

<400> 3
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Pro Lys Ile Ser ₂₀	Pro Leu Phe Ile Arg ₂₅	Glu Ala Ile Met Ile ₃₀	Val Thr
Ile Asp Met ₃₅	Ile Cys Leu Arg Leu ₄₀	Ala Pro Lys Ser Ile ₄₅	Gln Val Leu
Leu Val ₅₀	Lys Arg Ser Asn ₅₅	Asn Arg Pro Asp Cys ₆₀	Gly Lys Trp Ala
Leu Pro Gly Gly Ile ₆₅	Val Tyr Asp Glu Asp ₇₀	Met Thr Ala His Gly ₇₅	Gly ₈₀
Glu Pro Val Asp ₈₅	Glu Asp Phe Asp Ala ₉₀	Ala Arg Arg Arg Ile ₉₅	Cys Arg
Gln Lys Val His ₁₀₀	Thr Tyr Pro Asn Phe ₁₀₅	Ile Ser Asp Pro Leu ₁₁₀	Val Asp
Gly Asn Pro ₁₁₅	Lys Arg Asp Pro Asn ₁₂₀	Gly Trp Ser Val Ser ₁₂₅	Ile Ser His
Tyr Ala ₁₃₀	Leu Leu Asn Pro Trp ₁₃₅	Asn Val Lys Gln Ile ₁₄₀	Glu Asp Phe Gly
Ile Asp Pro Glu Arg ₁₄₅	Ala Asn Trp Phe Asp ₁₅₀	Leu His Thr Leu Leu ₁₅₅	Lys ₁₆₀
Glu Glu Met Pro ₁₆₅	Leu Ala Phe Asp His ₁₇₀	Val Ala Gln Ile Gln ₁₇₅	His Ala
Trp Gln Lys ₁₈₀	Leu Arg Ala Ala Val ₁₈₅	Glu Tyr Thr Ser Val ₁₉₀	Val Leu Phe
Ser Leu Glu ₁₉₅	Lys Glu Phe Leu Val ₂₀₀	Ala Asp Ile Ile Asp ₂₀₅	Ala Tyr Ala
Lys Phe Gly Val ₂₁₀	Glu Val Asn Arg Met ₂₁₅	Thr Ile Lys Arg Arg Leu ₂₂₀	Ile
Asn Thr Gly Val ₂₂₅	Ile Val Ser Thr Asn Lys ₂₃₀	Met Ala Ala Ser Cys ₂₃₅	Lys ₂₄₀
Gly Lys Gly Ala ₂₄₅	Lys Pro Ala Thr Val ₂₅₀	Tyr Arg Leu Ala Ser His ₂₅₅	Glu
Val Thr Tyr ₂₆₀	Phe Gln Thr Cys Leu Arg ₂₆₅	Gly	

<210> 4
 <211> 555
 <212> DNA
 <213> Vibrio metschnikovii RH530

<220>
 <221> CDS
 <222> (1)..(555)
 <223> valL2 gene

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 Page 4

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cat	ccg	ctt	agt	cat	cgt	ctg	cat	aaa	ttg	ggt	tat	cgt	act	caa	acc	96
His	Pro	Leu	Ser	His	Arg	Leu	His	Lys	Leu	Gly	Tyr	Arg	Thr	Gln	Thr	
			20					25					30			
att	agc	tac	aac	tca	ctc	gct	atc	gat	gat	gag	gcc	att	ttt	cgc	cgc	144
Ile	Ser	Tyr	Asn	Ser	Leu	Ala	Ile	Asp	Asp	Glu	Ala	Ile	Phe	Arg	Arg	
		35					40					45				
ctt	gac	cga	tcg	ctc	act	cat	gcc	tcg	cct	aat	gct	tta	gtc	gga	cac	192
Leu	Asp	Arg	Ser	Leu	Thr	His	Ala	Ser	Pro	Asn	Ala	Leu	Val	Gly	His	
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agt	ttg	ggc	gga	ttg	gtg	atc	aaa	cgt	tat	cta	gaa	tcg	cgc	gca	ccg	240
Ser	Leu	Gly	Gly	Leu	Val	Ile	Lys	Arg	Tyr	Leu	Glu	Ser	Arg	Ala	Pro	
65					70					75					80	
tcc	tgt	gaa	acc	ctc	tcc	cat	gtc	gtc	gcc	atc	ggc	tca	cct	ttg	caa	288
Ser	Cys	Glu	Thr	Leu	Ser	His	Val	Val	Ala	Ile	Gly	Ser	Pro	Leu	Gln	
				85					90					95		
gga	gct	tcc	att	gtc	aat	aaa	att	gag	caa	tta	ggt	tta	ggg	gtg	gca	336
Gly	Ala	Ser	Ile	Val	Asn	Lys	Ile	Glu	Gln	Leu	Gly	Leu	Gly	Val	Ala	
			100					105					110			
cta	ggt	aat	tca	gca	gaa	ttt	ggg	tta	aaa	gaa	cac	gac	gac	gaa	tcc	384
Leu	Gly	Asn	Ser	Ala	Glu	Phe	Gly	Leu	Lys	Glu	His	Asp	Asp	Glu	Ser	
		115					120					125				
cgc	tat	cca	caa	aaa	tca	ggc	agt	att	gca	gga	acg	ata	cct	tta	ggg	432
Arg	Tyr	Pro	Gln	Lys	Ser	Gly	Ser	Ile	Ala	Gly	Thr	Ile	Pro	Leu	Gly	
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Leu	Arg	Ser	Leu	Leu	Leu	Arg	Asp	Pro	Leu	Asp	Ser	Asp	Gly	Thr	Val	
145					150					155					160	
aca	gta	gaa	gaa	acc	aaa	ata	gct	ggc	atg	aca	gat	cat	atc	gcg	ata	528
Thr	Val	Glu	Glu	Thr	Lys	Ile	Ala	Gly	Met	Thr	Asp	His	Ile	Ala	Ile	
				165				170						175		
tcc	acc	act	tca	tac	gag	aat	gct	gtt								555
Ser	Thr	Thr	Ser	Tyr	Glu	Asn	Ala	Val								
			180					185								

<210> 5
 <211> 185
 <212> PRT
 <213> *Vibrio metschnikovii* RH530

<400> 5
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 20 25 30
 Ile Ser Tyr Asn Ser Leu Ala Ile Asp Asp Glu Ala Ile Phe Arg Arg
 35 40 45
 Leu Asp Arg Ser Leu Thr His Ala Ser Pro Asn Ala Leu Val Gly His
 Page 5

50	55	60
Ser 65	Leu Gly Gly Leu Val 70	Ile Lys Arg Tyr Leu 75
Glu Ser Arg Ala Pro 80		
Ser Cys Glu Thr 85	Leu Ser His Val Val 90	Ile Gly Ser Pro Leu 95
Gln 95		
Gly Ala Ser 100	Ile Val Asn Lys Ile 105	Glu Gln Leu Gly Leu 110
Gly Val Ala 110		
Leu Gly Asn 115	Ser Ala Glu Phe Gly 120	Leu Lys Glu His Asp 125
Asp Asp Glu Ser 125		
Arg Tyr 130	Pro Gln Lys Ser Gly 135	Ser Ile Ala Gly Thr 140
Ile Pro Leu Gly 140		
Leu Arg Ser Leu Leu 150	Leu Arg Asp Pro Leu 155	Asp Ser Asp Gly Thr Val 160
Val 160		
Thr Val Glu Glu 165	Thr Lys Ile Ala Gly Met 170	Thr Asp His Ile Ala 175
Ile 175		
Ser Thr Thr 180	Ser Tyr Glu Asn Ala Val 185	
Val 185		